

**UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 5**

| | | |
|-----------------------------------|---|---------------------|
| IN THE MATTER OF: |) | |
| |) | |
| Aristech Chemical Corporation |) | NOTICE OF VIOLATION |
| Haverhill Plant |) | |
| Ironton, Ohio |) | |
| |) | EPA-5-99-OH-27 |
| Proceedings Pursuant to the |) | |
| Section 113 of the Clean Air Act, |) | |
| <u>42 U.S.C. § 7413</u> |) | |

NOTICE OF VIOLATION

This Notice of Violation is issued pursuant to Section 113(a) (1) of the Clean Air Act ("Act"), 42 U.S.C. § 7413(a) (1). You are hereby notified that the Administrator of the United States Environmental Protection Agency ("U.S. EPA"), by authority duly delegated to the undersigned, finds Aristech Chemical Corporation ("Aristech"), Ironton, Ohio, to be in violation of Part C of the Act, 40 C.F.R. § 52.21 and the Ohio State Implementation Plan ("SIP") as promulgated pursuant to Section 110 of the Act, 42 U.S.C. § 7410. Specifically, Aristech is in violation of Section 165(a) of the Act and 40 C.F.R. § 52.21 for failing to obtain a Prevention of Significant Deterioration ("PSD") permit prior to modifying a major emitting facility.

STATUTORY AND REGULATORY AUTHORITY

1. Section 110 of the Act, 42 U.S.C. § 7410, requires States to adopt, and submit to the U.S. EPA for approval, SIPs providing for the implementation, maintenance, and enforcement of the National Ambient Air Quality Standards ("NAAQS") promulgated by U.S. EPA pursuant to Section 109 of the Act, 42 U.S.C. § 7409. U.S. EPA has promulgated NAAQS for, among other pollutants, ozone (volatile organic compounds (VOC)).
2. Part C of the Act, 42 U.S.C. §§ 7470-7491, requires the Administrator to promulgate regulations to prevent the significant deterioration of air quality in areas designated as attainment or unclassifiable in accordance with Section 107(d) of the Act, 42 U.S.C. § 7407(d). In accordance with this Statute, the Administrator promulgated regulations at 40 C.F.R. § 51.166 setting forth State Implementation Plan ("SIP") approval requirements for the prevention of significant deterioration of air quality.
3. Section 161 of the Act, 42 U.S.C. § 7471, and 40 C.F.R. § 51.166(a) (1) require the States to submit SIPs containing emission limitations and

other measures necessary to prevent the significant deterioration of air quality. Pursuant to Section 110(a) of the Act, 42 U.S.C. § 7410(a), the Administrator determined the Ohio SIP did not satisfy the measures required to ensure the prevention of significant deterioration of air quality. As a result, the Administrator disapproved the PSD portion of the Ohio SIP, 40 C.F.R. § 52.1884(a).

4. In accordance with Section 110(c) of the Act, 42 U.S.C. § 7410(c) and 40 C.F.R. § 52.21(a), the Administrator incorporated the provisions of 40 C.F.R. § 52.21(b) through (w) [PSD Regulations] as part of the Ohio SIP, 40 C.F.R. § 52.1884(b) on August 7, 1980 (45 Fed. Reg. 52741) and again on January 29, 1981 (46 Fed. Reg. 9584).
5. "Major stationary source" is defined at 40 C.F.R. § 52.21(b) (1) (I) as, among other things, any chemical processing plant that emits or has the potential to emit, 100 tons per year of any air pollutant subject to regulation under the act.
6. "Major modification" is defined at 40 C.F.R. § 52.21(b) (2) (I) as "any physical change in or change in the method of operation of a major stationary source that would result in a significant net emissions increase of any pollutant subject to regulation under the Act."
7. "Significant" is defined at 40 C.F.R. § 52.21(b) (23) (I) as "net emissions increase or the potential of a source to emit any of the following pollutants, a rate of emissions that would equal or exceed any of the following rates" including but not limited to; "100 tons per year (TPY) CO, 40 TPY of NO_x, 40 TPY of SO₂, 25 TPY of Particulate Matter, 40 tpy of VOC for Ozone..."
8. 40 C.F.R. § 52.21(b) (2) (iii) (e) (1) and 40 C.F.R. § 51.166(b) (2) (iii) (e) (1) state, among other things, that a physical change or change in the method of operation shall not include the use of an alternative fuel or raw material by the stationary source, which the source was capable of accommodating before January 6, 1975.
9. 40 C.F.R. § 52.21(i) states no stationary source or modification to which the requirements of paragraphs (j) through (r) for this section shall begin actual construction without a permit which states that the stationary source or modification would meet those requirements.
10. Section 165(a) of the Act states, among other things, that no major emitting facility may be constructed or modified unless a permit has been issued in accordance with requirements of Part C of the Act.
11. 40 C.F.R. § 52.21(j) (3) states that the owner or operator of a major stationary source that undertakes a major modification shall install best available control technology ("BACT") for each pollutant regulated

under the Act for which the modification would result in a significant net emission increase at the source. This requirement applies to each proposed emissions unit at which a net emissions increase in the pollutant would occur as a result of a physical change or change in the method of operation in the unit.

12. 40 C.F.R. § 52.21(k) requires, among other things, that the owner or operator of a major stationary source that proposes to undertake a major modification to demonstrate that allowable emission increases from the proposed modification, in conjunction with all other applicable emission increases or reductions, including secondary emissions, would not cause or contribute to an air pollution violation of any NAAQS in any air quality control region or any applicable maximum allowable increase over the baseline concentration in any area.
13. 40 C.F.R. § 52.21(m) requires, among other things, that any application for a permit under Subpart A contain an air quality analysis for each pollutant for which the modification would result in a significant net emission increase as defined at 40 C.F.R. § 52.21(b) (23).
14. 40 C.F.R. § 52.21(o) requires, among other things, that the owner or operator of a major stationary source that proposes to undertake a major modification provide an analysis of the impairment to visibility, soils and vegetation that would occur as a result of the major modification.
15. 40 C.F.R. § 52.21(r) provides, that any owner or operator of a source subject to the PSD regulations who constructs or operates a source or modification not in accordance with the application submitted pursuant to this section or with the terms of any approval to construct or any owner or operator of a source or modification subject to this section who commences construction after the effective date of these regulations without applying for and receiving approval hereunder, shall be subject to appropriate enforcement action.
16. 40 C.F.R. § 52.23 provides, among other things, that failure to comply with any provisions of 40 C.F.R. Part 52, or with any approved regulatory provision of a SIP or with any permit condition, or with any permit limitation or condition contained within an operating permit issued under an EPA-approved program that is incorporated into the SIP, subjects the person or governmental entity so failing to comply in violation of a requirement of an applicable implementation plan and subject to enforcement action under Section 113 of the Act.

FACTUAL BACKGROUND

17. Aristech operates five organic chemical manufacturing units at its facility located at P.O. Box 127, Ironton, Ohio. Aristech manufactures phenol, acetone, alpha methylstyrene (AMS), cumene hydroperoxide (CHP),

bisphenol A (BPA), aniline, and diphenylamine (DPA) from one of five units -- the Phenol I and II unit, BPA unit, Aniline unit and DPA unit.

18. Scioto County is an area presently classified as attainment or unclassifiable for all criteria pollutants. 40 C.F.R. Subpart B, § 81.336.

1985 Modification

19. Prior to 1985, Aristech's facility was a "major stationary source" as defined at 40 C.F.R. § 52.21(b)(1)(I).
20. On March 25, 1985, Aristech began a "major modification" known as the Phenol Expansion Project, as defined at 40 C.F.R. § 52.21(b)(2)(I). Phase one included the installation of the 201-DH oxidizer.
21. December 2, 1985, Aristech began phase two for the Phenol Expansion Project. Phase two included the installation of the 201-JB air compressor.
22. September 2, 1986, Aristech submitted a Permit to Install (PTI) application for the Phenol Expansion Project. Aristech claimed the modification would increase emissions by seventeen percent (17%).
23. September 15, 1986, the Portsmouth Local Air Agency replied to Aristech's PTI application and stated that no PTI modification was necessary for the Phenol Expansion Project.
24. In October 1986, startup of phase three for the Phenol Expansion Project began. Phase three included the installation of two new feed preheaters, a new sidestream preheater, a larger stripper condenser, and an added condenser for the cleavage reactor in the Phenol II unit.
25. In July 1987 Aristech began startup of phase four for the Phenol Expansion Project. Phase four included the installation of two larger condensers in Phenol I, a larger condenser for the cumene oxidizers, and two replacement condensers in the AMS section of the Phenol II unit.
26. On April 30, 1988, Aristech completed the Phenol Expansion Project.

27. On October 12, 1990, Aristech provided the Portsmouth Local Air agency with a chronological list of modifications to the Cumene Oxidation Unit from 1978 to present along with the associated VOC emission rates. According to Aristech's timeline, the Phenol Expansion Project increased VOC emissions by 40.6 tpy.
28. On March 8, 1991, the Portsmouth Local Air Agency issued Aristech a Notice of Violation for completing the Phenol Expansion Project without first applying for and obtaining a Prevention of Significant Deterioration (PSD) PTI.
29. On April 12, 1991, Aristech responded to the Portsmouth Local Air Agency's March 8, 1991 letter. Aristech provided stack test data. In 1985, the carbon bed recovery system for the Cumene Oxidation Unit had a VOC emission rate of 48 TPY at a 94% recovery efficiency. In October 1990, the carbon bed recovery system for the Cumene Oxidation Unit had a VOC emission rate of 471 TPY at a 50% recovery efficiency. In this letter, Aristech also proposed to install a thermal oxidizer.
30. On April 20, 1992, Aristech resubmitted a PTI application for the Phenol Expansion Project.
31. To date, Aristech has failed to obtain a PTI for the Phenol Expansion Project.

VIOLATIONS

32. As stated in Paragraph 20, Aristech emitted over 100 TPY of VOC before modifications commenced in 1985. Thus, Aristech is a major stationary source as defined at 40 C.F.R. § 52.21(b) (1) (I).
33. In violation of Section 165(a) (1) of the Act and 40 C.F.R. § 52.21(I), Aristech modified Phenol I and Phenol II between 1985 and 1988 without first obtaining a construction permit that was issued in accordance with the Prevention of Significant Deterioration requirements (PSD permit).
34. In violation of 40 C.F.R. § 52.21(j) (3), on a continuing basis between 1985 and 1992, Aristech failed to install BACT for VOC emissions on the Cumene Oxidation Unit after undertaking a major modification of Phenol I and Phenol II.
35. In violation of 40 C.F.R. § 52.21(k), on a continuing basis between 1985 and the present, Aristech failed to demonstrate, among other things, that the emission increases from the Phenol Expansion Project would not cause or contribute to an air pollution violation of any National Ambient Air Quality Standard.
36. In violation of 40 C.F.R. § 52.21(m), on a continuing basis between 1985

and the present, Aristech failed to conduct an air quality analysis, and include this analysis with the permit application, for each pollutant that would undergo a significant increase, as defined at 40 C.F.R. § 52.21(b) (23), as a result of the Phenol Expansion Project.

37. In violation of 40 C.F.R. § 52.21(o), on a continuing basis between 1985 and the present, Aristech failed to provide an analysis of the impairment to visibility, soils and vegetation that would occur as a result of the Phenol Expansion Project.
38. In violation of OAC Rule 3745-31-02, Aristech modified Phenol I and Phenol II between 1985 and 1988 without first obtaining a modified permit to install.

NOTICE OF VIOLATION

The Administrator of the U.S. EPA, by authority duly delegated to the undersigned, notifies the State of Ohio and Aristech Chemical Corporation that the facility described above is in violation of the Ohio State Implementation Plan as promulgated pursuant to Section 110 of the Act, 42. U.S.C. § 7410, and Section 165(a) (1) of the Act and 40 C.F.R. § 52.21, Prevention of Significant Deterioration, as set forth in this Notice of Violation.

6/17/99
Date

Margaret M. Guerriero
Margaret M. Guerriero, Acting Director
Air and Radiation Division